

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the applications:

Listing of Claims:

Claims 1-231 (canceled)

232. (previously presented) A polypeptide comprising the amino acid sequence of a mammalian amyloid protein precursor (APP) or fragment thereof containing an APP cleavage site recognizable by a mammalian β -secretase, and further comprising two lysine residues at the carboxyl terminus of the amino acid sequence of the mammalian APP or APP fragment.

233. (previously presented) A polypeptide according to claim 232 comprising the amino acid sequence of a mammalian amyloid protein precursor (APP), and further comprising two lysine residues at the carboxyl terminus of the amino acid sequence of the mammalian amyloid protein precursor.

234. (previously presented) A polypeptide according to claim 232, wherein the mammalian APP is a human APP.

235. (previously presented) A polypeptide according to claim 232, wherein the human APP comprises at least one variation selected from the group consisting of a Swedish KM \rightarrow NL mutation and a London V717 \rightarrow F mutation.

236. (previously presented) A polynucleotide comprising a nucleotide sequence that encodes a polypeptide according to claim 232.

237. (previously presented) A vector comprising a polynucleotide according to claim 236.

238. (previously presented) A vector according to claim 237 wherein said polynucleotide is operably linked to a promoter to promote expression of the polypeptide encoded by the polynucleotide in a host cell.

239. (currently amended) A host cell transformed or transfected with a polynucleotide according to claim [[86]] 236 or a vector according to claim 237.

240. (previously presented) A host cell according to claim 239 that is a mammalian cell.

Claims 241-269 (canceled)

270. (currently amended) ~~Any isoform of~~ A mammalian Amyloid Precursor Protein (APP) modified such that the last two carboxy terminus amino acids of ~~that isoform~~ said APP are both lysine residues.

271. (currently amended) The ~~isoform of~~ APP ~~from~~ according to claim 270 comprising ~~the isoform known as~~ the amino acid sequence of APP695 modified so that its last two carboxy terminus amino acids are lysines.

272. (currently amended) The ~~isoform~~ APP of claim 271 comprising SEQ ID NO: 16.

273. (currently amended) The ~~isoform variant~~ APP of claim 271 comprising SEQ ID NO: 18 or 20.

274. (previously presented) A nucleic acid encoding a polypeptide according to claim 270.

275. (currently amended) ~~An eukaryotic~~ A host cell ~~comprising a transformed or transfected with a nucleic acids acid~~ of claim 274.

276. (currently amended) ~~An eukaryotic~~ A host cell comprising a polypeptide of claim 270.

277. (currently amended) ~~An eukaryotic~~ A host cell according to claim 275 that is a ~~mammalian~~ mammalian cell.

278. (currently amended) A mammalian host cell according to claim 277, selected from the group consisting of HEK293 and Neuro2a.

Claims 279-300 (canceled)

301. (new) A vector comprising a nucleic acid according to claim 274.

302. (new) A vector according to claim 301 wherein said nucleic acid is operably linked to a promoter to promote expression of the polypeptide encoded by the nucleic acid in a host cell.

303. (new) A polypeptide according to claim 234 wherein the human APP comprises the amino acid sequence of SEQ ID NO: 16, 18 or 20.